

ABSTRACT

An ultrasonic transducer driver has a giant magnetostrictive element, a fastener for holding the giant
5 magnetostrictive element under mechanical pressure, a first field generator for providing a magnetic bias field, a second field generator for providing a magnetic drive field and a magnetic circuit for channelling the magnetic fields in the magnetostrictive element. An ultrasonic
10 transducer for a bonding apparatus has a horn having a bonding tool at its smaller end and a mounting barrel adjoined onto it. The driver coupled to the larger end of the horn.